

SEQUENCE LISTING

<110> SHITARA, KENYA
SHIBUYA, MASABUMI

<120> DIAGNOSTIC AGENT AND THERAPEUTIC AGENT FOR DISEASE
RELATED TO MONOCYTE AND MACROPHAGE

<130> 249-243

<140> 10/009,723
<141> 2001-12-17

<150> PCT/JP00/03957
<151> 2000-06-16

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<151> 1999-06-17

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<170> PatentIn Ver. 2.1

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Gln Lys Phe Thr Ala Lys Ala His Val Thr Val Asp Thr Ser Ser Ser		
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aca gcc tac atg cag ttg agt agc ctg aca act gag gac tct gcc atc	336	
Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Thr Glu Asp Ser Ala Ile		
80	85	90
tat tac tgt gca cga cac ggg ggg gac ggc tac tgg ttt gct tac tgg	384	
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Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp	
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Ile Asn Tyr Asn Met His Trp Val Lys Gln Thr Pro Arg Gln Gly Leu	
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Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser	
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 80 85 90

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 Phe Arg Phe Ser Gly Ser Gly Ser Gly Thr Phe Tyr Ser Leu Thr Ile
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agc agt gtg gag gct gaa gat gct gcc gat tat tac tgc cat cag tgg 336
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Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
15 20 25

agc agt aac tat ata agt tgg gtg cga cag gcc cct gga caa ggg ctt 192
Ser Ser Asn Tyr Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
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Gln Lys Phe Thr Ala Arg Val Thr Ile Thr Val Asp Thr Ser Thr Ser		
65	70	75

aca gcc tac atg gag ctg agc agc ctg aga tct gag gac acg gcc gtg	336	
Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val		
80	85	90

tat tac tgt gcg aga cac ggg ggg gac ggc tac tgg ttt gct tac tgg	384	
Tyr Tyr Cys Ala Arg His Gly Gly Asp Gly Tyr Trp Phe Ala Tyr Trp		
95	100	105

ggc cag gga acc ctg gtc acc gtc tcc tca g	415	
Gly Gln Gly Thr Leu Val Thr Val Ser Ser		
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 30 35 40 45

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 Glu Trp Met Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn
 50 55 60

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 65 70 75

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15           20           25

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30           35           40

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Pro Lys Leu Leu Ile Tyr Asp Thr Ser Lys Leu Pro Ser Gly Val Pro
45           50           55

tca agg ttc agc ggc agt gga tct ggg aca gat ttc act ctc acc atc 288
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
60           65           70

agc agc ctg cag cct gaa gat ttt gca act tat tac tgt cag cag tgg 336
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Trp
75           80           85           90

agt agt aac cca ccc acg ttc ggc caa ggg acc aag gta gag atc aaa c 385
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<400> 49
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tgagcagCTT aggaggCTG cctggTT 87

<210> 50
<211> 86
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 50
attcagtggc agcgggtctg ggacagattt cactctcacc atcagcagcc tgcaggctga 60

agacgtcgca gtttattact gtcata 86

<210> 51
<211> 90
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 51
gttttccag tcacgaccgt acgtttgatc tccacccggc tcccttggcc gaacgtgtac 60
atactccact gatgacagta ataaaactgct 90

<210> 52
<211> 379
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<221> sig_peptide
<222> (1)..(66)

<220>
<221> mat_peptide
<222> (67)..(378)

<220>
<221> CDS
<222> (1)..(378)

<400> 52
atg gat ttt cag gtg cag att ttc agc ttc ctg cta atc agt gcc tca 48
Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
-20 -15 -10

gtc ata atg tcc aga gga gac atc gtg atg acc cag tct cca gac tcc
Val Ile Met Ser Arg Gly Asp Ile Val Met Thr Gln Ser Pro Asp Ser 96
-5 -1 1 5 10

ctg gct gtg tct ctg ggc gag agg gcc acc atc aac tgc agt gcc agc
Leu Ala Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Ser Ala Ser 144
15 20 25

tcg agt gta agt tac atg cac tgg tac cag cag aaa cca gga cag cct
Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro 192
30 35 40

cct aag ctg ctc att tac aga aca tcc aac ctg gct tct ggg gtc cct
Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro 240
45 50 55

gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc atc	288		
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile			
60	65	65	70
65	70		

agc agc ctg cag gct gaa gac gtc gca gtt tat tac tgt cat cag tgg	336				
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys His Gln Trp					
75	80	80	85	85	90
80	85	85	90		
85	90				

agt atg tac acg ttc ggc caa ggg acc aag gtg gag atc aaa c	379
Ser Met Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys	
95	100

<210> 53
<211> 8
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 53	8
ctctagag	

<210> 54
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 54	
cagtgttctt ggctgtgcaa aaagtggagg cattttcat aatagaaggt gcctacgtag	60

<210> 55
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 55	
gatcctacgt aggcacccatc tattatgaaa aatgcctcca cttttgcaca gccaaagaaca	60
ctgcatg	67

<210> 56
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 56		
gtataatgag cggccgcg		18
<210> 57		
<211> 22		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic DNA		
<400> 57		
gatccgcggc cgctcattat ac		22
<210> 58		
<211> 56		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic DNA		
<400> 58		
gaaggaaaaca gaaggcgcca tctatatatt tattcgaggt accaatacaa tcata		56
<210> 59		
<211> 30		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic DNA		
<400> 59		
aaactgactt ggccggcgcc atttatgtct		30
<210> 60		
<211> 30		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic DNA		
<400> 60		
cataaaatcct ataggtacca acgacaacta		30
<210> 61		
<211> 87		
<212> DNA		
<213> Artificial Sequence		

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<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 61
caggaaacag ctatgacgaa ttccaccatg gatttcaag tgcagatgg cagttccctg 60
ctaatcagtg cctcagtcat aatatcc                                87

<210> 62
<211> 93
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 62
aagtgtatggt gactctgtct cctacagatg cagacagggg ggtatggagac tgggtcatct 60
ggatatctcc tctggatatt atgactgagg cac                                93

<210> 63
<211> 85
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 63
agacagagtc accatcaatt gtagtgcacag ctcgagtgtt agttacatgc actggatca 60
gcagaaacca gggaaagccc ctaag                                85

<210> 64
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 64
atccactgcc gctgaacctt gatgggaccc cagaagccag gttggatgtt ctatagatca 60
gaagctttagg ggcttccctt gttt                                84

<210> 65
<211> 94
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 65
aagggttcagc ggcagtggat ctgggacaga tttcactctc accatcagca gcctgcagcc 60
tgaagattt gcaacttatt actgtcatca gtgg                                94
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<210> 66
<211> 85
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 66
gttttcccaag tcacgaccgt acgtttgatc tctaccttgg tcccttggcc gaacgtgtac 60
atactccact gatgacagta ataag 85

<210> 67
<211> 379
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<221> sig_peptide
<222> (1)..(66)

<220>
<221> mat_peptide
<222> (67)..(378)

<220>
<221> CDS
<222> (1)..(378)

<400> 67
atg gat ttt caa gtg cag att ttc agc ttc ctg cta atc agt gcc tca 48
Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
-20 -15 -10

gtc ata ata tcc aga gga gat atc cag atg acc cag tct cca tcc tcc 96
Val Ile Ile Ser Arg Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
-5 -1 1 5 10

ctg tct gca tct gta gga gac aga gtc acc atc act tgt agt gcc agc 144
Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Ser Ala Ser
15 20 25

tcg agt gta agt tac atg cac tgg tat cag cag aaa cca ggg aaa gcc 192
Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
30 35 40

cct aag ctt ctg atc tat aga aca tcc aac ctg gct tct ggg gtc cca 240
Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro
45 50 55

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tca agg ttc agc ggc agt gga tct ggg aca gat ttc act ctc acc atc	288
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile	
60 65 70	

agc agc ctg cag cct gaa gat ttt gca act tat tac tgt cat cag tgg	336
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Trp	
75 80 85 90	

agt atg tac acg ttc ggc caa ggg acc aag gta gag atc aaa c	379
Ser Met Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys	
95 100	

<210> 68
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 68	
caggaaacag ctatgactcc ggagctgagg tgaagaagcc tggggcctca gtgaaggct	60
cctgcaaggc ttctggatac	80

<210> 69
<211> 80
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 69	
ccactcaagg ccttgcagg gggcctgtcg cacccagtgc atattgtat taatgaagg	60
gtatccagaa gccttgcagg	80

<210> 70
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 70	
ctggacaagg gcttgagtgg atgggagcta tttttccagg aatggttt acttcctaca	60
atcagaaggt caagggcaga g	81

<210> 71
<211> 79
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 71
tctcaggctg cgca gctgca tgtaggctgt gctcgtggac ttgtcgacgg taatggtgac 60
tctgcccttg aacttctga 79

<210> 72
<211> 83
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 72
tgcagctgctg cagcctgaga tctgaggaca cggccgtgta tttctgtgcg agagatggtg 60
actattactt tgactactgg ggc 83

<210> 73
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 73
gttttcccaag tcacgacggg cccttggtgg aggctgagga gacggtgacc agggttccct 60
ggcccccagta gtcaaagtaa t 81

<210> 74
<211> 409
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<221> sig_peptide
<222> (1)..(57)

<220>
<221> mat_peptide
<222> (58)..(408)

<220>
<221> CDS
<222> (1)..(408)

<400> 74
atg gga ttc agc agg atc ttt ctc ttc ctc ctg tca gtg act aca ggt 48
Met Gly Phe Ser Arg Ile Phe Leu Phe Leu Leu Ser Val Thr Thr Gly
-15 -10 -5

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gtc cac tcc cag gtg cag ctg gtg cag tcc gga gct gag gtg aag aag 96
Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
-1 1 5 10

cct ggg gcc tca gtg aag gtc tcc tgc aag gct tct gga tac acc ttc 144
Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
15 20 25

att aat tac aat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt 192
Ile Asn Tyr Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
30 35 40 45

gag tgg atg gga gct att ttt cca gga aat ggt ttt act tcc tac aat 240
Glu Trp Met Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn
50 55 60

cag aag ttc aag ggc aga gtc acc att acc gtc gac aag tcc acg agc 288
Gln Lys Phe Lys Gly Arg Val Thr Ile Thr Val Asp Lys Ser Thr Ser
65 70 75

aca gcc tac atg cag ctg cgc agc ctg aga tct gag gac acg gcc gtg 336
Thr Ala Tyr Met Gln Leu Arg Ser Leu Arg Ser Glu Asp Thr Ala Val
80 85 90

tat ttc tgt gcg aga gat ggt gac tat tac ttt gac tac tgg ggc cag 384
Tyr Phe Cys Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln
95 100 105

gga acc ctg gtc acc gtc tcc tca g 409
Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 75
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 75
caggaaacag ctatgacgaa ttccaccatg gattttcaag tgcagattt cagttcctg 60
ctaattcgtg cctcagtcat aatatcc 87

<210> 76
<211> 93
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 76
aagtgtatggt gacccctct cctacagatg cagacaggga ggatggagac tgggtcatct 60
ggatatctcc tctggatatt atgactgagg cac 93

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<210> 77
<211> 85
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 77
agaggaggc accatcaatt gtagtgccag ctcgagtgt a gtttacatgc actggatca 60
gcagaaacca gggaaagccc ctaag 85

<210> 78
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 78
atccactgcc gctgaacctt gatgggacc cagaagccag gttggatgtt ctatagatca 60
gaagctttagg ggcttccct gttt 84

<210> 79
<211> 94
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 79
aaggttcagc ggcagtggat ctgggacatt ttatactctc accatcagca gcctgcagcc 60
tgaagattt gcaacttatt actgtcatca gtgg 94

<210> 80
<211> 85
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<400> 80
gtttccca gtcacgaccgt acgtttgatc tctacccttgg tcccttggcc gaacgtgtac 60
atactccact gatgacagta ataag 85

<210> 81
<211> 379
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<221> sig_peptide
<222> (1)..(66)

<220>
<221> mat_peptide
<222> (67)..(378)

<220>
<221> CDS
<222> (1)..(378)

<400> 81
atg gat ttt caa gtg cag att ttc agc ttc ctg cta atc agt gcc tca      48
Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
-20                      -15                      -10

gtc ata ata tcc aga gga gat atc cag atg acc cag tct cca tcc tcc      96
Val Ile Ile Ser Arg Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
-5           -1   1           5           10

ctg tct gca tct gta gga gag gag gtc acc atc act tgt agt gcc agc      144
Leu Ser Ala Ser Val Gly Glu Glu Val Thr Ile Thr Cys Ser Ala Ser
15           20           25

tcg agt gta agt tac atg cac tgg tat cag cag aaa cca ggg aaa gcc      192
Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
30           35           40

cct aag ctt ctg atc tat aga aca tcc aac ctg gct tct ggg gtc cca      240
Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro
45           50           55

tca agg ttc agc ggc agt gga tct ggg aca ttt tat act ctc acc atc      288
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Phe Tyr Thr Leu Thr Ile
60           65           70

agc agc ctg cag cct gaa gat ttt gca act tat tac tgt cat cag tgg      336
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Trp
75           80           85           90

agt atg tac acg ttc ggc caa ggg acc aag gta gag atc aaa c      379
Ser Met Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
95           100

<210> 82
<211> 138
<212> PRT
<213> Mus musculus

<400> 82
Met Glu Trp Asn Trp Val Val Leu Phe Leu Leu Ser Leu Thr Ala Gly
-15                      -10                      -5

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Val Tyr Ala Gln Gly Gln Met Gln Gln Ser Gly Ala Glu Leu Val Lys
 -1 1 5 10

Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Pro Ser Gly Phe Thr Phe
 15 20 25

Ser Ser Asn Tyr Ile Ser Trp Leu Lys Gln Lys Pro Gly Gln Ser Leu
 30 35 40 45

Glu Trp Ile Ala Trp Ile Tyr Ala Gly Thr Gly Asp Ala Ser Tyr Asn
 50 55 60

Gln Lys Phe Thr Ala Lys Ala His Val Thr Val Asp Thr Ser Ser Ser
 65 70 75

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Thr Glu Asp Ser Ala Ile
 80 85 90

Tyr Tyr Cys Ala Arg His Gly Gly Asp Gly Tyr Trp Phe Ala Tyr Trp
 95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ala
 110 115

<210> 83
 <211> 128
 <212> PRT
 <213> Mus musculus

<400> 83
 Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 -20 -15 -10

Val Ile Ile Ser Arg Gly Gln Leu Val Leu Thr Gln Ser Pro Ala Ile
 -5 -1 1 5 10

Met Ser Ala Ser Gln Gly Glu Lys Val Thr Met Thr Cys Ser Ala Ser
 15 20 25

Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Ser Gly Thr Ser
 30 35 40

Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Leu Pro Ser Gly Val Pro
 45 50 55

Ala Arg Phe Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile
 60 65 70

Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp
 75 80 85 90

Ser Ser Asn Pro Pro Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 95 100 105

<210> 84

<211> 136
 <212> PRT
 <213> Mus musculus

<400> 84
 Met Gly Phe Ser Arg Ile Phe Leu Phe Leu Leu Ser Val Thr Thr Gly
 -15 -10 -5
 Val His Ser Gln Ala Phe Leu Gln Gln Ser Gly Ala Glu Leu Val Arg
 -1 1 5 10
 Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 15 20 25
 Ile Asn Tyr Asn Met His Trp Val Lys Gln Thr Pro Arg Gln Gly Leu
 30 35 40 45
 Glu Trp Ile Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn
 50 55 60
 Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
 65 70 75
 Thr Val Tyr Met Gln Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
 80 85 90
 Tyr Phe Cys Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln
 95 100 105
 Gly Thr Thr Leu Thr Val Ser Ser
 110 115

<210> 85
 <211> 126
 <212> PRT
 <213> Mus musculus

<400> 85
 Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 -20 -15 -10
 Val Ile Met Ser Arg Gly Gln Ile Val Leu Thr Gln Ser Pro Ala Ile
 -5 -1 1 5 10
 Met Ser Ala Ser Leu Gly Glu Glu Ile Thr Leu Thr Cys Ser Ala Ser
 15 20 25
 Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Ser Gly Thr Ser
 30 35 40
 Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro
 45 50 55
 Phe Arg Phe Ser Gly Ser Gly Ser Gly Thr Phe Tyr Ser Leu Thr Ile
 60 65 70

Ser Ser Val Glu Ala Glu Asp Ala Ala Asp Tyr Tyr Cys His Gln Trp
 75 80 85 90

Ser Met Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 95 100

<210> 86

<211> 138

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 86

Met Glu Trp Asn Trp Val Val Leu Phe Leu Leu Ser Leu Thr Ala Gly
 -15 -10 -5

Val Tyr Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
 -1 1 5 10

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 15 20 25

Ser Ser Asn Tyr Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
 30 35 40 45

Glu Trp Met Gly Trp Ile Tyr Ala Gly Thr Gly Asp Ala Ser Tyr Asn
 50 55 60

Gln Lys Phe Thr Ala Arg Val Thr Ile Thr Val Asp Thr Ser Thr Ser
 65 70 75

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
 80 85 90

Tyr Tyr Cys Ala Arg His Gly Gly Asp Gly Tyr Trp Phe Ala Tyr Trp
 95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 110 115

<210> 87

<211> 136

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 87

Met Gly Phe Ser Arg Ile Phe Leu Phe Leu Leu Ser Val Thr Thr Gly
 -15 -10 -5

Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
 -1 1 5 10

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 15 20 25

Ile Asn Tyr Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
 30 35 40 45

Glu Trp Met Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn
 50 55 60

Gln Lys Phe Lys Gly Arg Val Thr Ile Thr Val Asp Lys Ser Thr Ser
 65 70 75

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
 80 85 90

Tyr Tyr Cys Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln
 95 100 105

Gly Thr Leu Val Thr Val Ser Ser
 110 115

<210> 88
 <211> 128
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 88
 Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 -20 -15 -10

Val Ile Ile Ser Arg Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
 -5 -1 1 5 10

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Ser Ala Ser
 15 20 25

Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
 30 35 40

Pro Lys Leu Leu Ile Tyr Asp Thr Ser Lys Leu Pro Ser Gly Val Pro
 45 50 55

Ser Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 60 65 70

Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Trp
 75 80 85 90

Ser Ser Asn Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 95 100 105

<210> 89
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 89
 Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 -20 -15 -10

Val Ile Met Ser Arg Gly Asp Ile Val Met Thr Gln Ser Pro Asp Ser
 -5 -1 1 5 10

Leu Ala Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Ser Ala Ser
 15 20 25

Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro
 30 35 40

Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro
 45 50 55

Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 60 65 70

Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys His Gln Trp
 75 80 85 90

Ser Met Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 95 100

<210> 90
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 90
 Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
 -20 -15 -10

Val Ile Ile Ser Arg Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
 -5 -1 1 5 10

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Ser Ala Ser
 15 20 25

Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
 30 35 40

Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro
 45 50 55

Ser Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 60 65 70

Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Trp
 75 80 85 90

Ser Met Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 95 100

<210> 91

<211> 136

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 91

Met Gly Phe Ser Arg Ile Phe Leu Phe Leu Leu Ser Val Thr Thr Gly
 -15 -10 -5

Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
 -1 1 5 10

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 15 20 25

Ile Asn Tyr Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
 30 35 40 45

Glu Trp Met Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn
 50 55 60

Gln Lys Phe Lys Gly Arg Val Thr Ile Thr Val Asp Lys Ser Thr Ser
 65 70 75

Thr Ala Tyr Met Gln Leu Arg Ser Leu Arg Ser Glu Asp Thr Ala Val
 80 85 90

Tyr Phe Cys Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln
 95 100 105

Gly Thr Leu Val Thr Val Ser Ser
 110 115

<210> 92

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
humanized antibody

<400> 92

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
-20 -15 -10Val Ile Ile Ser Arg Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
-5 -1 1 5 10Leu Ser Ala Ser Val Gly Glu Glu Val Thr Ile Thr Cys Ser Ala Ser
15 20 25Ser Ser Val Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
30 35 40Pro Lys Leu Leu Ile Tyr Arg Thr Ser Asn Leu Ala Ser Gly Val Pro
45 50 55Ser Arg Phe Ser Gly Ser Gly Thr Phe Tyr Thr Leu Thr Ile
60 65 70Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Trp
75 80 85 90Ser Met Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
95 100

<210> 93

<211> 117

<212> PRT

<213> Mus musculus

<400> 93

Gln Ala Phe Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ile Asn Tyr
20 25 30Asn Met His Trp Val Lys Gln Thr Pro Arg Gln Gly Leu Glu Trp Ile
35 40 45Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn Gln Lys Phe
50 55 60Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Val Tyr
65 70 75 80Met Gln Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Leu Thr Val Ser Ser
115

<210> 94
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
humanized antibody

<400> 94
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ile Asn Tyr
20 25 30

Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Val Thr Ile Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 95
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
humanized antibody

<400> 95
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ile Asn Tyr
20 25 30

Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Ala Ile Phe Pro Gly Asn Gly Phe Thr Ser Tyr Asn Gln Lys Phe
 50 55 60

Lys Gly Arg Val Thr Ile Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Arg Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Asp Gly Asp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu
 100 105 110

Val Thr Val Ser Ser
 115

<210> 96

<211> 105

<212> PRT

<213> Mus musculus

<400> 96

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
 1 5 10 15

Glu Glu Ile Thr Leu Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
 20 25 30

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Leu Leu Ile Tyr
 35 40 45

Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Phe Arg Phe Ser Gly Ser
 50 55 60

Gly Ser Gly Thr Phe Tyr Ser Leu Thr Ile Ser Ser Val Glu Ala Glu
 65 70 75 80

Asp Ala Ala Asp Tyr Tyr Cys His Gln Trp Ser Met Tyr Thr Phe Gly
 85 90 95

Gly Gly Thr Lys Leu Glu Ile Lys Arg
 100 105

<210> 97

<211> 105

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 humanized antibody

<400> 97

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
 20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr
 35 40 45

Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
 50 55 60

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
 65 70 75 80

Asp Phe Ala Thr Tyr Tyr Cys His Gln Trp Ser Met Tyr Thr Phe Gly
 85 90 95

Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 98

<211> 105

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
humanized antibody

<400> 98

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

Glu Glu Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
 20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr
 35 40 45

Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
 50 55 60

Gly Ser Gly Thr Phe Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
 65 70 75 80

Asp Phe Ala Thr Tyr Tyr Cys His Gln Trp Ser Met Tyr Thr Phe Gly
 85 90 95

Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 99

<211> 105

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic

humanized antibody

<400> 99
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15
Glu Arg Ala Thr Ile Asn Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30
His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
35 40 45
Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
50 55 60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu
65 70 75 80
Asp Val Ala Val Tyr Tyr Cys His Gln Trp Ser Met Tyr Thr Phe Gly
85 90 95
Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105